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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,014	10/28/2003	Kai Marcucelli	244707US17	3698
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OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			HINZE, LEO T	
			ART UNIT	PAPER NUMBER
			2854	

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

31

<b>Office Action Summary</b>	<b>Application No.</b> 10/694,014	<b>Applicant(s)</b> MARCUCELLI ET AL.	
	<b>Examiner</b> Leo T. Hinze	<b>Art Unit</b> 2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>20050420</u> . | 6) <input type="checkbox"/> Other: _____  |

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## DETAILED ACTION

### *Double Patenting*

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 18-20 and 22 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 8 and 9 of copending Application No. 10/693,891 ('891) in view of Arai, US 4,652,141 (Arai).

a. Regarding claim 18:

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'891 teaches an electronic device comprising: a case; an electronics module contained by said case and including at least a processor and a memory configured to store a plurality of available mode settings for the electronic device; and an input mechanism configured to provide input commands to said processor, wherein said processor is configured to, based on said input comments, configure said electronic device to provide a custom mode setting for a subset of the plurality of available modes (claim 1). '891 is silent as to the details of any housing or other means of allow a user to easily carry the device.

'891 does not teach a housing for an electronics module, comprising a sleeve portion having an interior bend configured to receive a knuckle on a wearer's finger such that the housing can be securely mounted on the wearer's finger; a cavity configured to receive an electronics module therein; a control access configured to align with controls of the electronics module such that the wearer can operate the electronics module when contained in said recess; and an electronics module contained in said housing.

Arai teaches a housing for an electronics module, comprising a sleeve portion (a1, Fig. 1) having an interior bend configured to receive a knuckle on a wearer's finger (see generally A, Fig. 3, and how A covers the fingers of the hand, and shows the fingers in a bent position) such that the housing can be securely mounted on the wearer's finger; a cavity (6, Fig. 4) configured to receive an electronics module therein; and a control access (B2, B3, B4, Fig. 1) configured to align with controls of the electronics module such that the wearer can operate the electronics module when contained in said recess.

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It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify '891 to include a housing for an electronics module, comprising a sleeve portion having an interior bend configured to receive a knuckle on a wearer's finger such that the housing can be securely mounted on the wearer's finger; a cavity configured to receive an electronics module therein; and a control access configured to align with controls of the electronics module such that the wearer can operate the electronics module when contained in said recess, because a person having ordinary skill in the art would recognize that the functionality of the '891 device would be enhanced if it included a means for easily attaching to a user's hand or wrist for easy and secure transport.

b. Regarding claim 19, the combination of '891 and Arai teaches all that is claimed in the provisional obviousness-type double patenting rejection of claim 18 above. '891 also teaches wherein said processor operates in a current operation mode sequence where the input mechanism is used to initiate functions of a current mode of the electronic device (claim 8).

c. Regarding claim 20, the combination of '891 and Arai teaches all that is claimed in the provisional obviousness-type double patenting rejection of claim 18 above. '891 also teaches wherein said processor operates in a custom mode sequence where the input mechanism is used to select said subset of the available modes to be provided in a custom mode setting (claim 9).

d. Regarding claim 22:

'891 teaches an electronic device comprising: a case; an electronics module contained by said case and including at least a processor and a memory configured to store a plurality of available mode settings for the electronic device; and an input mechanism configured to

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provide input commands to said processor, wherein said processor is configured to, based on said input comments, configure said electronic device to provide a custom mode setting for a subset of the plurality of available modes (claim 1). '891 is silent as to the details of any housing or other means of allow a user to easily carry the device.

'891 does not teach a housing for an electronics module, comprising means for receiving a knuckle on a wearer's finger such that the housing can be securely mounted on the wearer's finger; means for mounting an electronics module in the housing; and means for accessing controls of the electronics module such that the wearer can operate the electronics module when contained in said recess.

Arai teaches a housing for an electronics module, comprising means for receiving a knuckle on a wearer's finger (a3, Fig. 1) such that the housing can be securely mounted on the wearer's finger; means for mounting an electronics module in the housing (6, Fig. 4); and means for accessing controls (B2, B3, B4, Fig. 1) of the electronics module such that the wearer can operate the electronics module when contained in said recess.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify '891 to include a housing for an electronics module, comprising means for receiving a knuckle on a wearer's finger such that the housing can be securely mounted on the wearer's finger; means for mounting an electronics module in the housing; and means for accessing controls of the electronics module such that the wearer can operate the electronics module when contained in said recess, because a person having ordinary skill in the

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art would recognize that the functionality of the '891 device would be enhanced if it included a means for easily attaching to a user's hand or wrist for easy and secure transport.

This is a provisional obviousness-type double patenting rejection.

*Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 4-7, 10-12, 15-17 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Arai, US 4,652,141 (Arai).

a. Regarding claim 1, Arai teaches a housing for an electronics module, comprising a sleeve portion (a1, Fig. 1) having an interior bend configured to receive a knuckle on a wearer's finger (see generally A, Fig. 3, and how A covers the fingers of the hand, and shows the fingers in a bent position) such that the housing can be securely mounted on the wearer's finger; a cavity (6, Fig. 4) configured to receive an electronics module therein; and a control access (B2, B3, B4, Fig. 1) configured to align with controls of the electronics module such that the wearer can operate the electronics module when contained in said recess.

b. Regarding claim 2, Arai also teaches wherein said interior bend is configured such that the housing substantially resists rotational movement when worn on the wearer's finger. It is

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apparent from examining Fig. 3 that device A will resist relative rotational movement with respect to the wearer's finger when worn on the wearer's finger.

c. Regarding claim 4, Arai also teaches wherein said cavity has a substantially similar shape as said electronics module to be received in said cavity (see 6, Fig. 4 and B1, Fig. 3).

d. Regarding claim 5, Arai also teaches wherein said cavity includes at least one opening (5, Fig. 4) that is smaller than a periphery of the electronics module such that the electronics module is held securely in the sleeve when the electronics module is forced into the cavity.

e. Regarding claim 6, Arai also teaches wherein said cavity includes at least one opening (5, Fig. 4) configured to align with a display of said electronics module such that the display is viewable when the module is contained in said housing.

f. Regarding claim 7, Arai also teaches wherein said at least one opening comprises a rectangular opening (5, Fig. 4, Fig. 3).

g. Regarding claim 10, Arai also teaches wherein said control access comprises at least one switch cover (3, Fig. 2) configured to align with a switch (B<sub>2</sub>, Fig. 2) on said electronics module when said module is contained in said housing.

h. Regarding claim 11, Arai also teaches an electronics module (B1, Fig. 3, Fig. 4) contained in said housing.

i. Regarding claim 12, Arai also teaches wherein said electronics module is configured to perform at least one of measuring, recording, and providing feedback to the wearer of the housing (col. 2, ll. 38-42).



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j. Regarding claim 15, Arai also teaches wherein said electronics module comprises a watch ("watch," col. 2, l. 40).

k. Regarding claim 16, Arai also teaches wherein said housing is configured to be worn on any finger of a wearer's hand (Fig. 3, showing the device A on all the fingers of the users hand). The examiner reasonably interprets "any" according to it's definition as "one, some, or all indiscriminately of whatever quantity" as found in the Merriam-Webster online dictionary.

l. Regarding claim 17, Arai also teaches another sleeve portion (a3, Fig. 1) configured to receive another finger of the wearer's hand adjacent to the finger received in the sleeve portion having the interior bend.

m. Regarding claim 21, Arai teaches a housing for an electronics module, comprising means for receiving a knuckle on a wearer's finger (a3, Fig. 1) such that the housing can be securely mounted on the wearer's finger; means for mounting an electronics module in the housing (6, Fig. 4); and means for accessing controls (B2, B3, B4, Fig. 1) of the electronics module such that the wearer can operate the electronics module when contained in said recess.

### *Claim Rejections - 35 USC § 103*

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 3, 8, 9, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arai in view of Fitzmorris, US 5,088,072 (Fitzmorris).

a. Regarding claim 3:

Arai teaches all that is claimed as discussed in the rejection of claim 1 above, except wherein said recess is oriented in relation to the interior bend of the sleeve such that the electronics module is mounted on a side portion of the wearer's finger when contained in said cavity and the housing is worn on the wearer's finger.

Fitzmorris teaches an electronics module mounted on a side portion of the wearer's finger when worn on the wearer's finger (10, Fig. 1). Fitzmorris teaches that one of the drawbacks of the Arai device is the difficulty of the thumb in reaching the fingertip controls, for example when a cyclist is squeezing a hand grip (col. 1, ll. 55-65).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Arai to place the electronics module on the side portion of the wearer's finger, because such a placement would eliminate the difficulty of thumb in reaching

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the fingertip controls, for example when a cyclist is squeezing a hand grip, thereby making the device easier to use.

b. Regarding claim 8:

Arai teaches all that is claimed as discussed in the rejection of claim 7 above, including wherein said control access comprises three switch covers (3, Fig. 2) integrally formed in said housing and configured to align with depress switches (B2, B3 and B4, Fig. 1) of the electronics module.

Arai does not teach said switch covers being positioned adjacent to respective right, left and bottom sides of said rectangular opening.

Fitzmorris teaches an electronics module mounted on a side portion of the wearer's finger when worn on the wearer's finger (10, Fig. 1), and controls (28, Fig. 1) located on the device. Fitzmorris teaches that one of the drawbacks of the Arai device is the difficulty of the thumb in reaching the fingertip controls, for example when a cyclist is squeezing a hand grip (col. 1, ll. 55-65).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Arai to place the electronics module on the side portion of the wearer's finger, and wherein said switch covers are positioned adjacent to respective right, left and bottom sides of said rectangular opening, because such a placement of the device and switches would eliminate the difficulty of thumb in reaching the fingertip controls, for example when a cyclist is squeezing a hand grip, thereby making the device easier to use.

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c. Regarding claim 9, the combination of Arai and Fitzmorris teaches all that is claimed as discussed in the rejection of claim 8 above. Arai also teaches wherein a length of each of said switch covers is smaller than a length of the respective side of the rectangular opening (see B2, B3, B4 in Fig. 1 and compare with 5 and B1, Figs. 3 and 4).

d. Regarding claim 13:

Arai teaches all that is claimed as discussed in the rejection of claim 11 above, including wherein: said interior bend is positioned on a top portion of the housing (see Fig. 3, where the bends appear to be at the top of the housing as oriented in the figure), said electronics module includes a rectangular display (B1, Fig. 4), said recess includes a rectangular opening (5, Fig. 4) configured to align with the rectangular display contained in said housing, such that the display is viewable through said opening, said control access comprises three switch covers (3, Fig. 2) integrally formed in said housing and configured to align with depress switches (B2, B3, B4, Fig. 1) of the electronics module said switch covers being positioned such that a user can operate the switch covers with a finger of the hand on which the housing is mounted.

Arai does not teach wherein said recess is oriented such that a plane of said display is substantially perpendicular to an apex of said interior bend such that the display is viewable on a side portion of the wearer's finger when the housing is mounted on the wearer's finger, and said control access comprises three switch covers integrally formed in said housing and configured to align with depress switches of the electronics module, said switch covers being positioned adjacent to respective right, left and bottom sides of said rectangular opening.

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Fitzmorris teaches an electronics module mounted on a side portion of the wearer's finger when worn on the wearer's finger (10, Fig. 1), and controls (28, Fig. 1) located on the device. Fitzmorris teaches that one of the drawbacks of the Arai device is the difficulty of the thumb in reaching the fingertip controls, for example when a cyclist is squeezing a hand grip (col. 1, ll. 55-65).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Arai to place the electronics module on the side portion of the wearer's finger, and wherein said switch covers are positioned adjacent to respective right, left and bottom sides of said rectangular opening, because such a placement of the device and switches would eliminate the difficulty of thumb in reaching the fingertip controls, for example when a cyclist is squeezing a hand grip, thereby making the device easier to use.

e. Regarding claim 14:

The combination of Arai and Fitzmorris teaches all that is claimed as discussed in the rejection of claim 13 above, except wherein when viewing the display face, the dimensions of the housing are: approximately 58 mm from left tip to right tip, approximately 22 mm from bottom to top of watch, and 34 mm from the plane of the display to the back of the housing.

It appears from Fig. 3 and Fig. 4 of Arai, assuming the size of the hand shown is similar to that of a normal human hand, and not that of a giant or a dwarf, that the dimension of the housing are similar to approximately 58 mm from left tip to right tip, approximately 22 mm from bottom to top of watch, and 34 mm from the plane of the display to the back of the housing.

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It has been held that mere changes in size are not sufficient to patentably distinguish over the prior art. See MPEP § 2144.04 (IV)(A).

It would have been obvious to a person having ordinary skill in the art at the time of the invention to modify Arai such that the dimensions of the housing are: approximately 58 mm from left tip to right tip, approximately 22 mm from bottom to top of watch, and 34 mm from the plane of the display to the back of the housing, because one having ordinary skill in the art would recognize that a housing having such dimension would be small enough for the need of Arai and Fitzmorris, while still providing a large enough screen to be readable by the wearer, and large enough to accommodate the necessary number of switches for operation.

8. Claims 18-20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arai in view of Lizzi, US 6,669,361 (Lizzi).

a. Regarding claim 18:

Arai teaches all that is claimed as discussed in the rejection of claim 1 above, except wherein said electronics module comprises: includes at least a processor and a memory configured to store a plurality of available mode settings for the electronic device; and an input mechanism configured to provide input commands to said processor, wherein said processor is configured to, based on said input comments, configure said electronics module to provide a custom mode setting for a subset of the plurality of available modes.

Lizzi teaches a method for enabling/disabling mode functions in a multimode electronic device, including a device with a processor (2, Fig. 2) and a memory (8, Fig. 2) configured to store a plurality of available mode settings for the electronic device; and an input mechanism

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configured to provide input commands to said processor, wherein said processor is configured to, based on said input comments, configure said electronics module to provide a custom mode setting for a subset of the plurality of available modes (col. 1, ll. 7-14). Lizzi teaches that a capability to customize modes overcomes some of the deficiencies of the prior art (col. 1, l. 66 through col. 2, l. 4), including information overload and frustration (col. 1, l. 55).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Arai wherein said electronics module comprises: includes at least a processor and a memory configured to store a plurality of available mode settings for the electronic device; and an input mechanism configured to provide input commands to said processor, wherein said processor is configured to, based on said input comments, configure said electronics module to provide a custom mode setting for a subset of the plurality of available modes, because Lizzi teaches that a capability to customize modes overcomes some of the deficiencies of the prior art, including information overload and frustration.

b. Regarding claim 19, the combination of Arai and Lizzi teaches all that is claimed as discussed in the rejection of claim 18 above. As properly combined with Arai in the above rejection, Lizzi also teaches wherein said processor is capable of operating in a current operation mode sequence where the input mechanism (6, Fig. 2) is used to initiate functions of a current mode of the electronic device (col. 6, ll. 39-67).

c. Regarding claim 20, the combination of Arai and Lizzi teaches all that is claimed as discussed in the rejection of claim 18 above. As properly combined with Arai in the above rejection, Lizzi also teaches wherein said processor operates in a custom mode sequence where

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the input mechanism is used to select said subset of the available modes to be provided in a custom mode setting (col. 2, ll. 8-38).

d. Regarding claim 22:

Arai teaches all that is claimed as discussed in the rejection of claim 21 above, including an electronics module (B1, Fig. 3) mounted in said housing by way of said means for mounting.

Arai does not teach said electronics module comprises: a processor; means for storing a plurality of mode settings; means for inputting input commands to said processor, wherein said processor is configured to, based on said input commands, configure the electronic device to provide a custom mode setting for a subset of the plurality of available modes.

Lizzi teaches a method for enabling/disabling mode functions in a multimode electronic device, including a device with a processor; means for storing a plurality of mode settings; means for inputting input commands to said processor(2, Fig. 2), wherein said processor is configured to, based on said input commands, configure the electronic device to provide a custom mode setting for a subset of the plurality of available modes (col. 2, ll. 8-38). Lizzi teaches that a capability to customize modes overcomes some of the deficiencies of the prior art (ccl. 1, l. 66 through col. 2, l. 4), including information overload and frustration (col. 1, l. 55).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Arai wherein said electronics module comprises: a processor; means for storing a plurality of mode settings; means for inputting input commands to said processor, wherein said processor is configured to, based on said input commands, configure the electronic device to provide a custom mode setting for a subset of the plurality of available



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modes, because Lizzi teaches that a capability to customize modes overcomes some of the deficiencies of the prior art, including information overload and frustration.

*Conclusion*

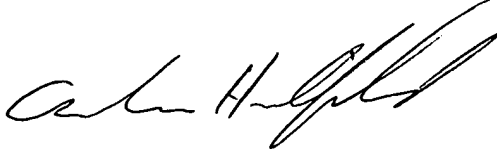
9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leo T. Hinze whose telephone number is (571) 272-2167. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Leo T. Hinze  
Patent Examiner  
AU 2854  
24 June 2005

  
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